For about seven
221 months these bands go wandering across the prairie in search of small
[222] game, small animals such as caterpillars, spiders, grasshoppers, rodents, snakes, lizards, and so forth, and fruits, grains, roots or wild honey—in short, all that might keep them from dying of hunger. Their camps, set up for one or several days, sometimes for several weeks, consist of as many temporary shelters as families, made of palms or branches stuck in a semi-circle in the sand and connected at the top. This is the period when the quest for food absorbs all activities. The women equip themselves with digging sticks, and
221 the men hunt with the bow and arrow, of which several types must be
411 distinguished. The eastern groups have a bow with a flat section
184 which evolves toward a convex-plane section or a concave-convex section when one moves westward. As for the arrows, those made for hunting birds have a blunted tip. Arrows for fish have three to five points, each one formed like a minute harpoon, and the stem is without barb. The poisoned arrows (1), whose tip is protected [15]

1. See below, p. 95.

by a sheath of bamboo, are reserved for hunting monkeys and small game. Those for large game have a long lanceolate point. The barb is attached or sewed on. Besides the bow and arrow, the men use a club
[789] which often takes the form of a javelin, and its use is reserved for magic and war operations (1).

1. Cf. below, p. 99.

● 824 The primary materials of the indigenous industry consist of varied
825 woods, wax from wild bees, resin, fibers of the buriti palm trees (Mauritia vinifera) and tucum (Astrocaryum tucuma) bone of the monkey, teeth and claws of mammals, fur (only to make ornaments), feathers, quills of porcupines, vegetable shells and river shells, stones,
412 cotton and grains. As implements they have knives made from a sharp piece of bamboo, from stones crudely fashioned, or from fragments of iron or steel obtained through exchange, and fixed with the aid of wax and cord between two pieces of wood forming the handle. Drills are made of a borer of stone or iron mounted at the end of a stick
[177] which they turn between their palms. The Rondon Commission expanded the use of axes and metal hammers, and the old stone axes serve now only as small anvil blocks for fashioning shell or bone.
[415] The use of stone polishers must also be mentioned and, among the objects of current usage, the spindles, combs, baskets and gourds to carry water.

carry water. Pottery, unknown to the eastern groups, is crude everywhere else. There are neither canoes nor dugouts. The Indians make five different types of musical instruments, all winds, which are often heard in festivals.

The difference in physical appearance between the Nambikwara and their eastern, western and southern neighbors—Paressi, Tupi-Kawahib and the tribes of the Guaporé—is striking. (2) And they

2. The anthropological study of the Nambikwara was the object of research of Dr. J.-A. Vellard, who was part of our expedition.

also differ from most of the other tribes of Brazil, whose physical type is generally more massive than theirs. In the case of the Nambikwara, the body is not exceptionally small; but they are slim, and their long hair, sometimes wavy and of more developed pilosity than the indigenous median, their hands and feet of reduced dimensions, their fine lineaments, and above all their faces, of characteristic outline but very purely chiseled, contribute to form a physical type far removed from that encountered most often in South America, but which reminds one persistently of certain types of southern Mexico and Guatemala, and even more of that characterized by the masks with pointed beards of the region of Vera Cruz.

* * * *

The Nambikwara get up at dawn, stir up the fires, warm themselves as well as they can after the cold of the night, then they eat lightly of the [16] remains of last evening's yucca cakes. A little later the men leave, together or separately, for a hunting expedition. The women remain in the camp where they devote themselves to culinary duties. The first bath is taken when the sun begins to come up. The women and children often bathe together for amusement, and sometimes a fire is lighted before which they crouch to warm themselves on coming out of the water while they playfully exaggerate a natural shivering. Other bathing takes place during the day. The daily occupations vary little. The preparation of food is that which requires the most care and time. Yucca must be ground and pressed, and the pulp dried and cooked. Or else the cumaru nuts (Dipteryx odorata) which add their perfume to most dishes must be shelled and boiled. When the need is felt, women and children go out on foraging expeditions. If the provisions are sufficient, the women spin, crouched

512 [516] on the ground in the position known by the name "aztec"—on their knees, the legs and feet flat on their inner side and the buttocks resting [306] on the heels. Or else they cut, polish and file beads from nut- [515] shells or sea shells, earrings or other ornaments. And if the work bores them, they pick the lice from one another, stroll around or sleep.

512 521 During the warmest hours the camp is silent. The inhabitants, silent or asleep, enjoy the uncertain shade of the shelters. The rest of the time, the occupations are carried on with animated conversations. Nearly always gay and laughing, the Indians exchange jokes, and sometimes, with unmistakable gestures, obscene or scatological accounts which are greeted with great shouts of laughter. The work is often interrupted by mutual visits or questions; when two dogs or birds copulate, everybody stops and contemplates the operation with fascinated interest; then work is taken up again, after an exchange of commentaries about this important happening.

512 The children lounge around during a great part of the day, the girls surrendering themselves at times to the same jobs as their elders, the boys idle or fishing along a stream of water. The men remaining in camp dedicate themselves to basketwork, making arrows and musical instruments, and sometimes to performing some small domestic service. Complete accord usually reigns within the household. Toward three or four o'clock, the other men return from the hunt, the camp becomes animated, the conversation becomes livelier, groups form, different from family agglomerations. They eat yucca cakes [262] and everything found during the day: fish, roots, wild honey, bats, ●824 little animals captured, and small sweet nuts from the palm bacaiuva (Acrocomia sp.). Sometimes a child begins to cry, quickly [855] consoled by an elder. When night falls some women, chosen daily, go to collect or cut down in the neighboring woods the store of wood 512 for the [17] night. They can be seen returning in the twilight, 313 staggering under the load which pulls the tumpline used for carrying 482 it. To unload, they crouch and lean backwards a little, letting their bundle of bamboo rest on the ground in order to disengage the tumpline from their forehead.

512 In a corner of the camp the branches are amassed and each one supplies himself in proportion to his needs. The family groups form around their respective fires which begin to glow. The evening is passed in conversation, or else in singing and dancing. Sometimes these distractions are prolonged far into the night, but in general, after some amusements of caressing and friendly fighting, the couples draw closer together, the mothers clutch their sleeping infants to them, everything becomes silent, and the cold night is

[86] LEADERSHIP

622 Each band recognizes the leadership of a chief (joheru, a1/2; uilikãde, b1/2; uelikapara, c). He commands the group, or more exactly the group of adult men who are his "companions" (nukanalore, b1/2). These see to it that the orders are carried out by their wives, who are rarely consulted. The women conform to the decisions of the men, but they do not, in the collective plane, execute them directly. They take part in this only inside their family group, within the limits of sexual division of labor such as we have previously described it. The tasks of the chief are diverse. The principal and most permanent consist of the administration of the group. It is the chief who decides the seasonal occupations at the beginning of the nomadic period,

27. uilikakamaniene ãitnaseneje (b1)
the chief commands: everybody on their way!

the moment and place where they will camp for the rains, the gardening work and choice of plantations, the construction of huts, the itineraries of trips and times of stopping, hunting expeditions, gathering or collecting trips, the conduct to be observed as regards neighboring groups. His role is generally summed up by the formula:

28. uilikã nãdana enate (b1)
the chief walks ahead. (1)

1. Thus, the philosophy of power does not seem to have been modified among the Brazilian Indians since the far-away day when, upon the occasion of an encounter made at Rouen, Montaigne made this statement: "Concerning what I asked him as to the fruits which he received from the superiority which he enjoyed among his people (for he was a Capitan and we sailors named him King), he told me that it was to be the first to march to war..." (Essais, éd. de la Pléiade, Paris, 1939, Ch. 31 "Des Cannibales").

[214] He also goes away much more frequently than his companions, for one or more days, accompanied by one or two of his polygamous wives who assist him in his enterprises, (2) with the purpose of

2. See above, p. 60 f.

discovering grains or fruits, [87] groves of piquy (a type of fir), of caju (Anacardium sylvestre), the heads of streams frequented by small game, where to lead his group, always searching for means of subsistence. His role is also that of maintaining internal discipline and of opposing the bad intentions of recalcitrants:

29. odnanjenuatonje hutento igalagatiene (bl)
Lazy one, I order you, that is enough, to work!

The only sanction at his disposition is that of obtaining the agreement of his companions to expell one who has become guilty of a fault (1) or who shows himself to be rebellious to collective life.

1. Cf. below, p. 111.

But that is only possible in the case where a single member of the group shows lack of discipline. The chief should show a continual talent which is more closely related to electoral politics than to the exercise of power, to maintain his group, and if possible, to enlarge it by new adherents. The nomadic band in fact represents a fragile unit. If the authority of the chief becomes too demanding, if he monopolizes too great a number of women, if he is not capable in periods of need of resolving the food problems, discontent is created, individuals or families break away, and go to attach themselves to a related band whose affairs seem to be better conducted—better nourished thanks to the discovery of a hunting or collecting site, or richer because of barter with neighboring groups, or more powerful after victorious wars. The chief then finds himself at the head of a too restricted group, incapable of facing daily difficulties, or whose women are exposed to being carried off by stronger neighbors, and he is obliged to renounce his command in order to join a more happy faction with his faithful followers; the Nambikwara society is thus in a state of perpetual flux. Groups form, are broken up, grow and disappear and, in several months' time sometimes the composition, number and division of bands become unrecognizable. All of these transformations are accompanied by intrigues and conflicts, by rises and falls, the whole being produced at an extremely rapid rhythm.

In exchange for the authority which they recognize in him, his companions are very demanding in regard to their chief; and if a decision made by him places the group in some difficulty, he is left alone to find means of surmounting it. We remember a trip undertaken by mutual consent, rendered more difficult than had been thought by the necessity of discovering a new itinerary along which our mules

278
[415]

p. 239 and Fig. 34), but seems not to know their usage nor the nature of their content.

usually tied in bundles of two or three or more, and thus all the Indians possess a provision of poison from which they rarely become separated. We were not able to find out anything concerning the preparation of these drugs, but it seems that different varieties exist, used either by men or women. Notably, the poisons whose small doses are contained in the feather quills would be [96] according to an informant, women's poisons, and also much more to be feared. The "tube poisons" (as compared with the arrow poison which is only employed for hunting, and never for war) play an important role in inter-individual relationships. They are the usual instrument for amorous or commercial vengeance. To define these poisons, there are special terms according to dialects. Thus the arrow poison has a special name: inãtu (a1); dãdnesu (a2); tiĩre, nãnde (b1); ãĩrare (b2); iriŋ̃ (c). But all of the arrow poisons and tube poisons are called by a more general term, belonging to dialect b1, but which is understood and used by all the groups: nãnde, which one might be wrongly tempted to translate as poison. It must be noted, however, from now on that in the case of tube poisons, the term nãnde means the tube and its contents simultaneously.

789 However besides these "true" poisons which we shall call scientific, there are other substances whose supposed action is of a purely magical character. Certain tubes contain, not a powder meant to be mixed with food, but fragments of resin of the tree called "barrigudo" or [824] "barrigudeira" in Portuguese (Bombax ventriculosa) and sahãtudĩtããru (a1/2), irĩdare (b1), jakĩ̃a (c) in Nambikwara. These fragments are used for certain "magic projections" which are carried out in the following way: a fragment of resin is placed between the lower edge of the palm of the left hand, held horizontally, and the tip of the index of the right hand held vertically (position called iuuehãre [a1]). By exercising strong pressure of the finger on the edge of the other hand, the index trips and throws the small projectile as far as several meters (asatãĩhedjuzu [a1], adãĩmdige [b1], ndãĩmdige [b2]). It is believed that the person reached by a fragment thrown in this way will become like the trunk of the barrigudo tree, narrow at the base and at the top and bloated in the center. He will fall ill, his stomach will begin to inflate, and finally he will die. This method of throwing is also often used for teasing, especially children, and to bombard an adversary with small fruit, with pieces of dirt,

796 The seasonal celebrations take place at the beginning and end of the rainy season, and probably mark the opening and closing of agricultural labor. They consist of festivals with dancing, singing and music. Several days in advance, hunting expeditions go in
[226] search of small game, and they also go in for large fishing expeditions. In fact, fish seems to play a role of the first rank in the ritualistic
796 activities. (1) Other Indians leave, sometimes for far-off places in
534

1. See below, p. 109.

[227] order to find thick bamboo in the forests which border the rivers or which occupy the valleys, from which they cut pieces to make the flageolets for the ritual. These are about 70 centimeters long and pierced by four holes besides the one for blowing. An air passage is effected at the upper end in the mouthpiece of wax which closes the opening. They are only used upon occasion of these ceremonies and are played in unison in groups of three, one of them, engraved with a white longitudinal line, being named iomõte yilikãde, (chief flageolet), and played by the chief. A resonator made from a bamboo trunk furnished at the lower end with a hollowed-out gourd usually accompanies them (dũnde, b1). The flageolets are called "male" and the resonators "female." Quite curiously, these flageolets are called iomõte (b1/2) and iamakã (c), by the central, northern and southern groups, that is from the same term (iamakã) by which the Paressi name the same instrument, while the eastern groups, who are the only immediate neighbors of the Paressi, employ a completely different term: kaigetãu (a 1/2). The Indians describe these festivals thus:

796 45. ukuẽrige ãdnige iuarhaidne ungãrage (hãidãne) ãinsurgerage
to hide to blow to play [the flageolet] to make merry fishing.

nahundage tãtige niuattahãtrige kãde kãde kãde kã aitẽndige
to carry to roast to make chicha moon moon moon this moon to dance

iukuohãndige mihãdage komiẽgerage
and another time to play [the following month] more rain everything is dry

[105] mĩãdage tutãhaihaikuitrige
the rain is finished let [the flutes?] be carried away

hãintendige halehãdnige denõ horãtige ejeteende
to make the field feast the women are hidden they do not see it

3: Lévi-Strauss E-5 (1938-1939) 1944
SP17 Nambicuara SP17

of skill and initiative are the prerequisites of a good leader. It is he who makes the arrow-poison, although the preparation of *curare* among the Nambikuara is a purely profane activity surrounded by no ceremonial taboos or magic prescriptions. It is he, also, who makes the rubber ball used in the head-ball games which are played occasionally. The chief must be a good singer and dancer, a merrymaker always ready to cheer up the band and to brighten the dullness of daily life. This could easily lead to shamanism; and, in some cases, I have met with chiefs who were at the same time healers and trance addicts. Mystical life, however, is kept in the background among the Nambikuara, and, wherever they exist, magical functions are only secondary attributes of the leader. More often chieftainship and sorcery are divided between two different individuals. In this respect, there is a strong difference between the Nambikuara and their northwestern neighbors the Tupi-Kawahib among whom the chief is, first of all, a shaman, usually a psychotic addicted to dreams, visions, trances and impersonations.

But although they are oriented in a more positive direction, the Nambikuara chief's skill and ingenuity are none the less amazing. He must have a perfect knowledge of the territories haunted by his and other groups, be familiar with the hunting grounds, the location of fruit-bearing trees and the time of their ripening, have some idea of the itineraries followed by other bands, whether hostile or friendly. Therefore, he must travel more, and more quickly, than his people, have a good memory, and sometimes gamble his prestige on hazardous contacts with foreign and dangerous people. He is constantly engaged in some task of reconnoitering and exploring, and seems to flutter around his band rather than lead it.

Except for one or two men without actual power, but eager to cooperate and to receive occasional rewards, the passivity of the band makes a strong contrast with its dynamic leader. It seems as if the band, having relinquished certain advantages to the chief, were in exchange relying entirely upon him for its interests and safety. I received a particularly striking demonstration of this under rather strange circumstances. After several weeks' discussion, I had obtained from a chief the favor of taking me, together with a few companions and some animals loaded with presents, to the semi-permanent dwellings of his band which were uninhabited at that time. This was a chance for me to penetrate more deeply into the unexplored Nambikuara territory

223 vanna, but they hunt for rhea eggs and the young birds.

224 When hunting caymans they do not use the word "cayman," nor will they take their eggs for fear of angering the mother cayman. After [535] a jaguar or tapir is killed the hunters sing and dance the following night.

Every group hunt has a hunt leader who is an experienced man. He tells each man exactly what he is to do. Hunting such animals as peccary, tapir, and jaguar demands careful teamwork. If the band splits up to hunt, the band chief will appoint the hunt leaders. If any man disobeys the hunt leader he will take the man's bow away from him and send him back to camp where he has to listen to the ridicule of the women. This is considered a great humiliation and happens only seldom and then to youths who are, as yet, inexperienced and overanxious to make a kill.

226 As the Nambicuara hunt along the banks of the rivers they are always ready to shoot any fish that happens to come near the bank. Sometimes they stand in one spot for hours waiting for pacú or matrinchã to pass near the bank. Certain berries which the fish like to eat are often thrown into the water to bring fish to the surface. At other times they tie a piece of broiled meat onto a stick and push the stick into the bottom. A man then stands on the bank, sucks air through his cupped hand, and as he lets the air out with a grunt he motions with his hand as if beckoning the fish to come near. This appears to be a magical act, for the Nambicuara claim that the fish understand the call. Sometimes they even talk to the fish saying that they have brought fat meat for them.

● [824] Timbó fishing is practiced in the shallow cutoffs of the main streams. First the pond is dammed off, then bundles of timbó vine (*kéatu*) are thrown into the shallow water and beaten with sticks until the vines are crushed, the bundles are then doused in the deeper water. As the fish in the ponds are very small, they are scooped up with baskets, either the cylindrical burden baskets or a shallow square basket. They also use a conical trap made on the spot from a few sticks which they thrust into the weeds where the fish are hiding. When they have finished with this trap (*tenáwa*) it is thrown away. Compared with the efficient equipment and methods in the Upper

4: Oberg E-5 (1949) 1953
SP17 Nambicuara SP17

subsistence activities. For instance, they say that they eat the blossoms of certain plants and a great number of grubs, larvae, and insects. A favorite dish is to crush in a mortar manioc cakes with boiled beans, broiled meat, ants, palm nuts, monkey and bird bones.

As an example of the variety of uses to which the Nambicuara can put a plant we can take the buriti palm: (1) They eat the pulp surrounding the scaly covered nut. (2) They use the fibers from the new growth to make twine. (3) They use the tough, flexible cortex of the frond stalk for making baskets. (4) They fell the buriti so that a certain variety of grub can collect and multiply in the starchy pith in the heart of the tree. The grube or larvae they then eat uncooked. (5) The dried frond stalks are tied into bundles and used as floats for crossing rivers. In addition, the buriti palm has male associations, for only men can prepare its products. When a male child dies a piece of buriti fiber is left over his grave.

The Nambicuara make fire by the drill method. They cut two round pieces of dry stick about 18 inches in length and three-quarters of an inch in diameter from some bush that has a soft pithy center. The lower stick is split and into the flat side shallow notches are cut to hold the drill in place. The drilling stick is then inserted into the notch while the lower stick is held in place by the toes of the man as he squats over it. He then begins to twirl the stick between his palms, pressing downward. As his hands reach the bottom, he quickly brings them to the top and continues drilling until the pith in the lower stick loosens into small smouldering balls. These he places into a handful of dry buriti fiber and begins to blow on them until the fiber ignites. About 2 minutes is all that is required to make a fire by this method.

MANUFACTURING

The material equipment of the Eastern Nambicuara is extremely simple. Many items, such as the conical trap for catching fish, the floats for crossing rivers, the loom for weaving arm bands, and the mortar and pestle for crushing food products are made for the occasion and are discarded when the task is completed or when the people move. The small grater and the few gourd vessels, small baskets, and twine, the woman carries

[p. 92(B)]

4: Oberg E-5 (1949)1953
SP17 Nambicuara SP17

619 which cause sickness, they have given the magical herbs whose smoke blinds the dangerous *anúnsu*, and the techniques which will drive away the storms. Thus the shaman operating on a symbolic level continues the struggle for survival which has been defined for the Nambicuara by the nature of their adjustment to their physical environment and their relationships to one another.

THE LIFE CYCLE

BIRTH

833 The Nambicuara recognize sexual intercourse
[842] (*winsúenditsu*) as the cause of pregnancy (*haldjítsu*). This act takes place in the woods while the husband and wife are out hunting or collecting, for it is considered improper to have sexual intercourse in public, even at night around the common camp fire. If a shaman should see a couple in
756 sexual embrace while practicing his rites it would
833 spoil his power. Although shamans use a special hut when calling their *anúnsu* there is always a chance that they may see a couple in the sexual act, so every effort must be made to avoid this
[834] danger. Shamans themselves abstain from sexual intercourse for 2 or 3 days before getting in contact with the spirits.

843 There appear to be no food taboos surrounding pregnancy among the Waklítisu. The husband continues hunting and collecting as usual, but he must avoid working too hard in the field for
[847] fear of causing his wife to abort. Women do not practice abortion, and the Nambicuara did not mention any medicines used for this purpose.
[832] Honey is considered conducive to sexual vigor and is used by young couples. Childless marriages
[843 586] are attributed to sterility in women, and a man may abandon his wife for this reason.

844 Birth takes place in the house, or in the camp if the family is out hunting. Just before expecting
● [824] the birth of a child the expectant mother drinks the juice of certain herbs which are believed to facilitate birth. The husband and two older women assist in the delivery. The woman kneels on the ground and is supported by her husband. The umbilical cord is tied with a certain vine and then cut with a bamboo sliver. Among the Kitânrhu it is bitten off by one of the midwives. The placenta is buried at the place of birth and when the umbilical cord dries and falls off, it, too,

[p. 102 (8)]

APPENDIX 1

RESOURCES OF THE NAMBICUARA

AGRICULTURAL FOOD PLANTS

241
824

Portuguese name	English name	Scientific name	Nambicuara name
Amendoim	Peanuts	*Arachis hypogaea*	Wálikisu.
Araruta	Arrowroot	*Maranta arundinacea*	Yalácsu.
Batata doce	Sweetpotatoes	*Ipomoea batatas*	Whu.
Cará		*Dioscorea* sp	Ha'kisu.
Fava	Beans	*Phaseolus lunatus*	Kwá'su.
Mandioca brava	Manios	*Manihot esculenta*	Walídnsu.
Milho	Maize	*Zea mays*	Kayátsu.

AGRICULTURAL NONFOOD PLANTS

Algodão	Cotton	*Gossypium* sp	Kéunsu.
Fumo	Tobacco	*Nicotiana tabacum*	E'tsu.
Cabaça	Gourd	*Lagenaria sicoraria*	Kad'd'hensu.
Urucú		*Bixa orellana*	D'unákasu.

WILD FOOD PLANTS (FRUITS)

137
824

Ananás	Pineapple	*Ananas comosus*	Kufáhu.
Babaçú		*Orbignya martiana*	Waisafkisu.
Bacaba		*Oenocarpus bacaba, distichus*	Wédnsu.
Bocaiuva		*Acrocomia eriocastha*	Haldnkisu.
Buriti (auta)		*Mauritia flexuosa; M. vinifera*	Héru.
Cajú-do-campo	Savanna cashew	*Anacardium nanum*	E'hru.
Cajú-do-mato	Forest cashew	*Anacardium gigantum*	Daunlfkisu.
Cumbaru		*Dipteryx odorata*	Najgisu.
Fruta-de-lobo		*Solanum lycocarpum*	Kónakisu.
Jaboticabeira	Jaboticaba tree	*Eugenia cauliflora*	Alhúnisu.
Mangabeira	Mangaba tree	*Hancornia speciosa*	Ehlkiálignsu.
Marmeleiro-do-campo	Quince tree	*Mouroucua brasiliensis*	Tkohlo.
Marmeleiro-de-espinho	do	do	Kad'l'kisu.
Marmeleiro	do	do	Wallikisu.
Marmeleiro	do	do	Halu'kisu.
Piquizeiro	Piqui tree	*Caryocar brasiliensis*	A'hru.
Petalas brancas de arbusto			Aldnyatsu.

WILD PLANTS USED IN MANUFACTURE

Buriti		*Mauritia flexuosa; M. vinifera*	Y6tsu.
Camaiuva		*Gnudus* sp	Kadfkatsu.
Cipó		*Philodendron imbe*	Kasdsu.
Piuva-da-mata (Paripari)		*Jacaranda copaia*	Hala'su.
Sapé		*Imperata brasiliensis, centrada*	Kaiekidansu.
Seringueira	Rubber tree	*Hevea brasiliensis*	Walfkatsu.

[p. 124]

INDIAN TRIBES OF NORTHERN MATO GROSSO, BRAZIL—OBERG

WILD PLANTS USED IN MANUFACTURE—Continued

Portuguese name	English name	Scientific name	Nambicuara name
Sirva		*Syagrus speciosa*	Dugndígatsu.
Taquara para ponta de flecha	Bamboo for arrowheads		Kaytasu.
Taquara para flauta secreta	Bamboo for sacred flute		Ka'd'inesu.
Taquara para panpipe	Bamboo for panpipe		Wasingatsu.
Tucum		*Astrocaryum furcatum*	Halé'tsu.

PLANTS USED FOR DRUGS AND POISON

Timbó		*Paullinia pinnata*	Kéuntu.

PLANTS USED IN VARIOUS ECONOMIC WAYS

Lixeira			Kaitnasu.
Embira			Se'hlu.

MAGICAL PLANTS

Parastudo			Inhákŏdíosu.

ANIMALS HUNTED FOR FOOD[1]

Anta	Tapir	*Tapirus terrestris*	Alénsu.
Arirauha	Otter	*Pteronura brasiliensis*	Dfwisu.
Bugio		*Alouatta ursina*	Ihru.
Caitetú	Peccary	*Tayassu pecari*	Y'ákisu.
Camondongo	Mouse	*Mus musculus*	Sdublu.
Capivara	Capybara	*Hydrochoerus hydrochaeris*	O'nsu.
Coati	Coati	*Nasua narica*	Kaisu.
Cotia	Rodent	*Dasyprocta aguti*	Dáhru.
Cutiá		*Alsiea alor*	Hóadasu.
Cuxio		*Alsiea pusiscus*	Kalísu.
Jaguatirica		*Felis pardalis chibiguara*	Ianaráwidnsu.
Lontra	Otter	*Lutra paranensis*	Kwantnáisu.
Macaco-prego	Monkey	*Cebus apella*	Hótsu.
Onça parda	Brown panther	*Felis concolor*	Ianarínenensu.
Onça pintada	Jaguar	*Felis onca*	Ianarítasu.
Ouriço		*Coendou prehensilis*	Holoótasu.
Paca		*Cuniculus paca*	Ülutsu.
Porco do mato			Yákadasu.
Preguiça		*Bradypus tridactylus*	Aldísu.
Rato de chapadão		*Sooptcromys gnambiguarae*	Nótasu.
Sagui-pitanga		*Midas rosalia*	Taktsu.
Tamanduá-bandeira		*Myrmecophaga jubata*	Dfkisu.
Tamanduá-mirim		*Cyclopes didactylus*	Wdnsu.
Tatú-bola	Armadillo	*Tolypeutes tricinctus*	Ndunsu.
Tatú-canastra		*Priodontes gigantcus*	Wahrdru.
Tatú-cascudo			Sunaisu.
Tatú-liso			A'hru.
Tatú-15-quilos			A'létasu.
Veado campeiro (a)	Deer		Yetáhru.
Veado campeiro (b)	do.		Whídisu.
Veado mateiro		*Mazama rufa*	Kuáklisu.

[1] Other than the animals listed are also eaten.

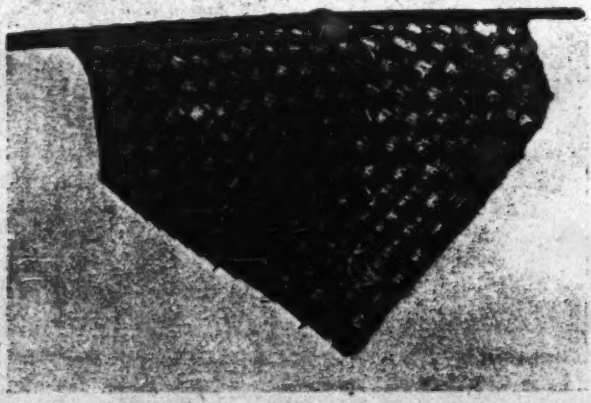
[p. 125]

5:Roquette-Pinto E-4 (no date)1913 SP17 Nambicuara SP17

000

e os lobulos das orelhas. Atravez dos orificios feitos no nariz passam pequenos pedaços de madeira—*unitat;* dos lobulos das orelhas fazem pender brincos feitos de pequenas contas de côco. Uzam braceletes, pulseiras e perneiras tecidas com *tucúm;* e ao redor do pescoço, um collar de contas da Mbacáiba (*Oenocarpus bacaba, Mart.*). Vivem da caça; mas tambem plantam milho, cará (*Dioscorea*), batata (*convolvulus*), mandioca e feijão. Fuman una folha mui semelhante ao tabaco brasileiro.

Os indios que iam ao posto dormiam sobe o chão. Este fato tem uma grande importancia, que será aumentada ainda mais, si os linguistas puderem aproximar seu idioma dos falados pelas tribus do grupo Gê. Certamente é preciso maior indagação para que se possa concluir alguma coisa; mas devemos ainda notar que não foram encontradas redes de dormir nas cabanas dos Nhambiquára, onde, em diferentes ocaziões, foi possivel examinar todo o mobiliario dessas habitações. E si forem confirmadas as opiniões de R. Schuller sobre a natureza do grupo



[285
372
824]

FIG. 1.—ABANO DE FOLHA DE BACÁIBA.

[Bacáiba leaf fire-fan]

linguistico Gê, passarão os Nhambiquára a fazer parte da familia Aruak, onde já se encontram os seus vezinhos Parecís.

Na coleção etnografica recebida pelo Museu, enviada pelo Coronel Rondon, acham-se como substancias alimentares amostras de milho, feijões e de uma conserva de mandioca muito semelhante ao "Kêtâhê" dos Parecí. Existem tambem na coleção algumas amostras de breu indijena. E'massa negra que amolece e funde a temperatura muito baixa, adquirindo intenso brilho, e des prendendo cheiro rezinozo; parece que é uma mistura da rezina do Oanani (*Syphonia globulifera*), e cêra. O principal emprego dessa massa é a fixação dos cordões que ligam a ponta á haste das flechas.

Os artefactos dos Nhambiquára têm um certo valor. Para a confecção dos abanos uzam as folhas de bacáiba (Fig. 1), sendo os foliolos trançados em grupos de 4, dois

342 provided with a fairly large doorway; it could easily hold some twenty people. The other had the shape of a triangular prism, with one of its [lateral] faces to the ground. It was more carefully constructed, and measured nine meters in length, three and a half in width and two and a half in height. One of its ends was closed; on the side, hidden by the leaves which hung from the roof, there was a small door. The other end was fully open. The hut was oriented in an east-west direction, the closed end facing the east. Thus in the afternoon the rays of the sun entered the house for a few hours.

Two forked stakes, one at each end of the building, supported the ridgepole. [222] Several beams designed to hold the huge covering leaves of the babassu palm ran from the ridgepole to the ground.

The palms which were laid on one side of the roof were folded at the top over the ridgepole onto the other side; in order to hold [283 824] them in this position, two rods ran the length of the house, tied to the inner beams with knots of embira (1) cord.

1. A bast fiber yielded by one of the embira trees. (Ed.)

Tagnani and Tawite villages also consist of two huts. Each, with its entrance oriented in an east-west direction, is evenly circular at ground level and conical in shape. From the apex of the cone a pole rises a few spans above the roof; it is always forked at the tip, as shown in the photograph. The doorways are set on opposite sides of the building, facing each other.

We still do not know how the Nambicuara trace the circle which delimits the hut; it must be a freehand line, for that is how they draw this figure on their gourds. In the middle of the house they set up four stakes forked at the tip and a centrl support. [Fig. 16]

The forked stakes form an overhead rectangle of wood, from which flexible poles run down into the ground along the circle which delimits the house. These poles are secured and connected by horizontal rods which complete the framework of the hut. The covering consists of bacaba palm leaves arranged in layers. As seen from within the hut, the first layer consists of plaited leaflets fastened to the [223] woodwork. [Plate p. 226]

513 At the post of Três Buritis, where they camped with us for a few days, they disputed every night the occupancy of a crude wooden table where the station personnel ate their meals; they already appreciated our habit of sleeping above the ground.

Why, then, did they not make use of the hammocks? Because they were not familiar with it.

[248 824] They are capable of plaiting cotton and tucum (1) thread more

1. Bactris setosa (Ed.).

than adequately enough to make a hammock; and they are also capable of appreciating their neighbor's hammock, as indeed they do now.

This ethnographic trait attests to the inferior position of the Serra do Norte Indians.

[171] [228] This unfamiliarity [with the hammock] is in fact characteristic of the large Ge-Botocudo group of Brazil, which in the consensus of all who have studied it comprises the most backward aborigines in the Americas.

All Serra do Norte Indians sleep directly upon the earth. They spread nothing in the way of leaves, straw, pallets or hides between themselves and the ground.

They nearly always rest on their side, pillowing the head on the forearm.

516 The men rarely sit directly on the ground; they usually squat. The women do the reverse. If standing in one spot for more than a few minutes, a man will usually flex one leg and rest his foot against the other knee; the women assume a characteristic posture which I have never seen described and which is clearly shown on the photographs we took.

They cross their thighs, thrusting the right part of the pelvis forward and the left part forcibly backward. The longitudinal axis of the right foot, if extended, cuts that of the left foot almost at a right angle.

They frequently cross their arms.

201 When excited or roused by happiness or fear, they repeatedly slap the back of their head with their open right hand. When displeased, they make the same gesture while exclaiming: "Ikátnerá!"

252 The Cocozu do not use a barbecue; they roast their meat in the embers. The quantity of ashes they swallow with the roast is considerable.

[Plates p. 230.]

[231] The Tagnani and Tawite build a characteristic type of barbecue. They set up four stakes which they connect with four crosspieces; between these they place two sticks to hold the pieces of meat.

[Fig. 23]

[272] They drink honey mixed with water (hydromel). They like
262 young bees, which they eat with the honey and wax.

They do not allow the maize to ripen, but eat it roasted when
252 still green. Manioc is subjected to the same process, or it is used in grated form to make cakes [beiju].

They press the gratings with embira cord and prepare very white pellets with the starch. To make the cakes, they open a cavity in the hot ashes of the fire and deposit in it a pellet of manioc dough which they smooth out with some piece of wood and with their hands. Then they cover it with ashes and embers; after a period of time which we do not know how they estimate, they uncover a large, roasted, sweet-smelling cake, somewhat sour, but which would be rather pleasant if it were not so covered with ashes and if it had not been prepared by such an unclean process...

[262 824] Green mangaba, (1) no sooner seen, is immediately plucked

1. Fruit of the mangabeira (Hancornia speciosa). (Ed.)

and placed in the embers. When roasted, it turns tender and pleasing to the taste.

[262] From bacaba palm nuts the Tawite make a purplish mush (uidniarê) which tastes like green leaves and which they relish. In order to prepare this uid-niarê, they pound the fruit of the palm and place it in water over the fire. This is actually a decoction.

273 We did not have an opportunity to observe the preparation of any fermented liquids. Yet the Indians make alcoholic beverages by

273 the usual process: they masticate manioc or maize and allow the mush to ferment in large pots. One drink thus extracted from the wild pineapple was held in high regard by the personnel of the Telegraph Line.

[262] They are especially fond of monkey meat--a last vestige,
266 perhaps, of their former cannibalistic tastes.

I do not think that cannibalism still exists among them. But I believe that it has not been long since the habit was lost.

It is true, nevertheless, that they often accuse one another of this practice; they make such accusations in a perfectly clear manner, by means of unequivocal signs.

372 [233] They make fire by rubbing together two rods similar to those found elsewhere in Brazil.

This procedure takes much longer than might be expected.

The Indian begins by placing a dry leaf upon the ground; upon it he rests the "stationary fire stick," which he supports with his foot and knee.

[Fig. 26]

Holding the "movable fire stick" between the palms of his hands, he imparts to it the necessary rotary motion, bearing down with it at the same time against the other stick. This motion forces the hands downward along the rod; [when he gets to the bottom], the Indian starts again from the top. Now and then he stops briefly to lick his palm, which smarts from the friction. After a while, when sweat is already beading his forehead, a spark strikes up among the tinder which has been deposited on the leaf.

This process differs from the classical technique only by the presence of the protective leaf.

Because this procedure is laborious, the Indians carry it out with reluctance. Desirous of obtaining a film which would document all their routine activities, I had great difficulty in persuading an Indian to make fire. This is the reason why, of all gifts, matches are among those valued most highly; to make fire after their fashion on a rainy day or in humid weather is a hard and laborious task.

[262 SP4 184] The Tagnani and Tawite also eat a certain kind of mushroom (Polyphorus sp.) which the others disregard.

824 It is a curious fact that palm cabbage (palmito) is not utilized by the Serra do Norte Indians. Gabriel Soares [234] made it clear in 1587 that the aborigines of the coast prized the leaf buds of the palm tree: "Stupendous palm cabbages, five or six spans in length and as thick as a man's leg, are extracted from the buds of these palms."

273 Pineapple wine was a common beverage, for Soares goes on to say: "The nature of this fruit is hot and humid, and it is very harmful [278] to those with open wounds or sores; the same pineapples, when green [757] are good for curing sores, for their juice eats away all the rotten and putrid flesh, and the aborigines know this; in such wise does this fruit [296] eat away, that they use its rind to wipe off the rust from their swords and knives and to remove the stains from the clothes they wash; when ripe, the juice is used by the Indians to make a wine which inebriates them; to this end they pluck the fruit not quite ripe, on account of its being more sour..."

263 The Indians of the Serra do Norte found our salted food unpleasant. They often refused the plates we set before them, giving us to understand that it was the salty flavor which led them to behave in this manner.

262 Milk (condensed milk) was also rejected in the beginning; they would make a face and say that it was human milk and therefore repulsive: [235] "Anungçú!"

261 One must know the Indians' gluttony, their insatiable hunger, their continual, unfailing, artless, persistent animus devorandi, fully to comprehend the disgust which led them to such a renunciation.

262 The children are given to eat of everything; no matter what 855 goes into an Indian's mouth, there is always a crumb for the little one who walks beside him or rests in his arms.

276 Even the stimulants they use--tobacco, for instance--are shared 855 with the children. More than once I had the opportunity to observe Indians giving cigarettes to children under two. (1)

[113]

1. Cf. E. Roquette-Pinto, "A condição da criança entre os Indios do Brasil [The Status of the Child Among the Indians of Brazil," Primeiro Congresso Americano da Criança [First American Congress on Childhood] (Tucumán, 1916).

411 The bows of the Serra do Norte Indians (hukiçú) are made of
171 ipê (1) wood and are very long, measuring from 1.70 to two meters;

[824]

1. [In this region, the term covers] trees of the Tecoma and Jacaranda genuses, Bignonia family. The forest variety is J. copaia, D. Don; the field varieties comprise the yellow type (T. ochracea, Mart.) and the purple or black kind (T. ipê, Mart.). (A. J. de S.)

the section is semi-circular. Of all Brazilian tribes, only the Catukina of the Purus River coil the twine around the weapon in a similar way. The cross-section of the Catukina bow, however, is quadrangular.

[Fig. 54]

We made an experiment to determine the approximate strength required to lend a bow the necessary power.

The bow we used measured 2.38 [sic] meters in length by 0.047 meter in its greatest width; its tucum cord [268] had a diameter of 0.002 meter. To set in this bow a fifty-centimeter arrow required 66 kilograms of dynamometric traction.

The [Serra do Norte] Indians use the Mediterranean release (Morse's fourth method): bow vertical, arrow resting against the left edge of the bow and held at the base between the index and middle fingers of the right hand.

In the Americas, this method is peculiar to the Eskimo; the "Redskins" employed another. In Brazil, no [other] tribe uses it as far as I have been able to ascertain; [269] for the most part, our Indians use the third method outlined by Morse.

[269] [Brazilian bows fall into the following categories listed by Hermann Meyer: 1) Peruvian; 2) Northern Brazilian; (1) 3) Guiana;

1. Semi-circular cross-section; dark red, smooth wood of a leguminous tree.

411
278

experiment with the resinous, supposedly poisonous substance found on the tip of one of these arrows. He injected a concentrated solution of it into frogs and guinea pigs, and the only resulting symptoms were muscular twitchings, unsteady gait, and some salivation.]

[Fig. 60]

441 Aieraçú: The tip is blunt; it is used to stun birds that are to be caught alive or free from blood, which stains the feathers. [See fig. ... (59), p.55A] Often a smooth tip wrapped in a straw pellet is used for the same purpose.

[227] [274] Some unique fishing arrows have a double, triple or quadruple tip and a bone barb. [See fig. ... (37), p. 36B.] Some have feathers at the base, others do not. . . . .

All Serra do Norte arrows have shafts made of thin bamboo. The various parts of the weapon are secured with strips of the strong [824] imbé liana (Philodendron imbe, Mart.).

[Fig. 61] The clubs are extremely crude weapons of attack and defense, mere portions of thick branches cut when the occasion demands it.

[324] [275] The axes of chipped stone are uniform in type. They are wedge-shaped, made of diorite, and they average two kilograms in weight. The handle is a piece of creeper stem, perhaps from a Bauhinia. The pitch and cord used to fasten the stone make the tool surprisingly strong. . . . .

381 The pitch is made of mastic resin, jatai (Hymenea stigonocarpa [824] or H. stilbocarpa), and wax, as well as other unknown substances. It is placed in pots and subjected to the action of fire, then kept in pellets fastened to embira strips or in loaves wrapped in leaves. Both the arrow "poison" and the axe pitch are called by the name of duhutaarú, which means "wax."

[Fig. 62]

226 Tephrosia toxicaria is a poisonous legume, a kind of tingui
824 [Lupinus cascavella] used in fishing.
278 They are not familiar with the fishhook, and use [276: full page of figures] [277] a sort of fish trap made with bamboo or with the stem of the titara liana (Desmoncus sp.).

262 The following foodstuffs are represented in the collection.

--Guaiatú: white maize.

--Urinodzu: manioc dough, which under microscopic examination proved to be very rich in starch grains. The root, once grated, 252 is pressed [by wringing] with a straw cord, the çaaru. (1) The grater [145]

1. [Heloisa Alberto Torres notes that the cylindrical tube used to press manioc by some Amazonian tribes must have spread from the Guianas to the valley of the Amazon. Métraux considers the woven band used for the same purpose and found on the periphery of the tube territory a more primitive form. The simple straw cord of the Nambicuara would thus constitute an even more primitive variant.]

is of the type used by the Xingu Indians (Suya, etc.). It consists of a board with about two [twenty?] rows of small sticks.

[Fig. 17]

262 --The larvae of a butterfly, which they eat alive.

--Katunuzú: anthill clay, which they also eat.

. . . . . .

[824] --A mushroom, orelha de pau (Polyporus sp.), which is eaten, and beans (Phaseolus sp.) of unusual aspect were also found in one village. [278] The smoked [moqueada] head of a great anteater was [251] found in a basket by Miranda Ribeiro during the 1909 expedition.

415 Mortars (nutêzê) are hollowed out by means of fire and used to
252 pound meat and other foods.

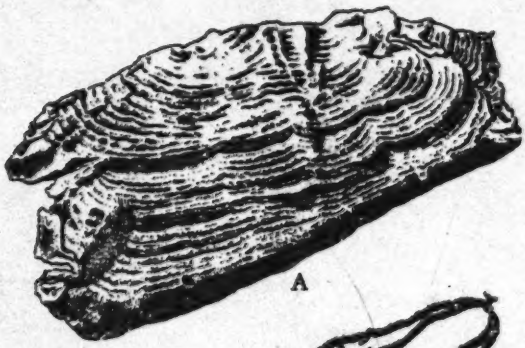
[262
824]

[283
825]

[237]

[301]

[531]



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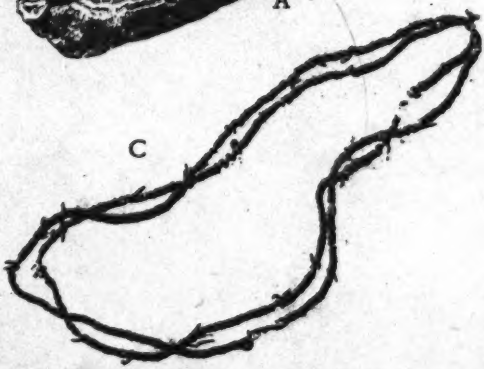

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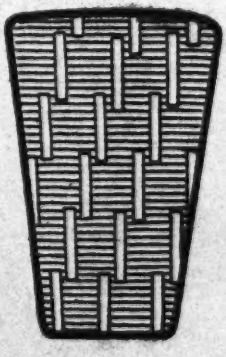

D

A. Arezi mushroom (Poliporus sp.) eaten by the Serra do Norte Indians.

B. Cord of monkey hair (Pithecia satanas).

C. Necklace made with minute shreds of feather stems.

D. Ornamental motif of the Serra do Norte Indians.

372 They make fire with mastic resin sticks, the tips of which are wrapped in straw to protect them from the rain.

[Fig. 63]

241 415 Their plots are worked with pointed sticks. The seeds of urucu, gourd plants (Lagenaria) and cotton are kept in leaf containers.

278 824 Medicinal fruit (Solanum mammosum) is also saved, as well as roots, leaves, etc.

[Fig. 31]

386 The collection contains two samples of dyes: a paste of urucu and fat, sweetly scented, which the women use to paint their body after the bath (huduhukaidi); and a variety of red ocher. [279]

248 Cotton (1) is represented by seeds (rim de boi variety) in leaf

[171]

1. According to the studies of Fa. Schmidt and Nordenskjöld (concerning hammocks), cotton reached Brazil from the Andes and was cultivated mostly by the Tupian Indians in the midst of the Amazon jungle. It is used less extensively among the Arawakan Indians. This distribution, due in part to the needs of the plant, explains its presence among the Nambicuara, who are located at the extreme west of the plateau. (R. L.)

[203 286] containers; cotton thread (kondzú) from a spindle (gdaretatú); skeins [855] of spun cotton; cotton fabric (sareguêzê--strap used to carry children).

[283] The spindle is made of a palm splinter imbedded in a round potsherd.

[Fig. 64]

415 924 Kateçú are fruits of the Lagenaria genus used as containers and storage vessels. Some hold crudely chopped tobacco and are stoppled with a corn cob, a method frequently used by the frontiersmen.

[See fig. ... (28) p. 30B.]

301 [280] [One necklace not mentioned earlier] is made with the
[824] seeds of a Cyperacea (tanieikerê) which the Suya of the Xingu River also use. . . . .

Oradaikruzê is a beautiful bracelet made with the tail rings of
[825 237] the giant armadillo (Dasypus gigas). It looks like ivory. Other bracelets are made from the nuts of the babassu and pindova (Orbignya speciosa)
[824] palms.

[Fig. 65]

Bands for the upper arm are made of cotton and fastened similarly to those of the Paressi.

291 The ialaçu is a simple fiber cape, widely used, which fastens to the neck and hangs down the back. There is also a black feather cape in the collection.

301 [281] The stem of the unetizú (nose plume) is made of thin bamboo or the stalk of a tough grass (Andropogon).

. . . . The helmets of puma or jaguar hide are used in that region only by the Nambicuara and by the Cayabi of the Paratininga.

[Fig. 66]

285 Max Schmidt broadly classified Brazilian Indian plaiting into Palmblattflechterei (palm-leaf plaiting) and Doppelfadengeflechte (double-strand plaiting). But he also admitted the existence of a third type, where two elements running in different directions are crossed by a third. This type occurs frequently on the Xingu River . . . and is found in Nambicuara baskets (atiçú).

[282: page of figures]

[283] As plaiting material the Nambicuara use titara liana and sometimes bamboo.

[293] . . . . Nambicuara fans, made with bacaba leaves, . . . are of pentagonal shape . . . .

534 A kind of nose flute made of gourd discs (hait-teataçú) seems
[171] to have been borrowed from the Paressi.

[Fig. 67]

The double flutes were borrowed from the Tapajoz tribes (Mundurucu, Maue, etc.). [See fig. . . . (70, p.]

/213 cont./
278 126 [1H] [162]
last Çabanè-Tagnani survivors, again showed me the complete preparation of curare. All the information gathered in the various Ñambikwara groups visited agrees with what I was able to observe.

In possession of these facts I prepared several times a certain quantity of curare identical to that of the Ñambikwara. The action of these different samples was tested in the field in order to be used in comparison with later experiments upon the return of the mission; thus any possibility of error due to a possible alteration of these products was eliminated.

A year has gone by since this time, and the various solutions brought back have kept their activity; they made it possible to examine rigorously their curarizing properties.

Preparation of Curare

278 824
Plant. Ñambikwara curare is prepared with only one plant, a Strychnos which grows in the sandy brushwood of the central plateau of the Mato Grosso. Although not rare this species is not abundant anywhere.

It is a bush two meters high (Pl. III, A), with a rather strong stem and downward-hanging branches, more or less sarmentous and sometimes changing into tendrils at the ends; I never saw a really twining example of this species. The branches have a reddish bark, /214/ without thorns, which is covered, as is the stem, with white concretions. The leaves are elongated and small or medium in size. The species is very polymorphous. No specimen bore flowers or fruit.

The Strychnos group is one of the most difficult to study. Many species rarely flower, and in the absence of flowers it is often impossible to identify them.

In certain features the species of the Ñambikwara is comparable to St. medeola. It exists in the plant collection of the Rondon Commission, but also without flowers and undetermined.

/214 cont./

278 Only the bark of the roots impregnated with a reddish,
824 gummy juice is used in the preparation of curare. The plants which grow in sandy places are considered to be richer in poison; they are recognized by the bright red color and moisture exuding from incisions made in the bark. Roots from clayey earth are dry and considered incapable of giving an active product.

The Ñambikwara of the Juruena consider it essential to gather the roots in the morning at dawn before the sun gets too hot, and they only use fresh bark. The Çabanè use dried, stored bark by preference.

Çabanè Curare

278 The preparation of Çabanè curare may be taken as typical. It comprises three main operations: draining of the bark in portions with fresh water; rapid boiling to rid the product of some of its impurities; slow concentration at low heat.

[410] Immediately after their harvest the roots are washed and then scraped with a splinter of bamboo or a piece of iron to detach the bark. Small, very fine shavings are thereby obtained which are dried and kept in baskets or gourds.

[411] Draining of the bark. The bark is placed in a small, elongated basket (kǫnǫsimatã) of bamboo lamellae reinforced by large leaves (kǫnǫkǫnǫsi) and hung by two vertical supports over an earthen dish. Over the bark they pour 200 to 250 cubic centimeters of cold water; a blood-red liquid filters off slowly. The filtering takes 15 to 20 minutes; when it is almost over fresh water is again poured over the bark. This operation is repeated six to eight times until the bark is exhausted (Pl. IV, A-3).

[412] Boiling on a brisk fire. After each operation the liquid obtained is poured into a receptacle placed directly over a strong fire; it is constantly /215/ stirred with a wooden spatula and does not take long to boil in large bubbles. When it

8:Vellard--17 D, E-5 (1938) 1939 SP17 Nambicuara SP17
Salvat

Plate V

/See caption on next page./

Çabanè

Plate V

271 Preparation of Çabanè curare (Vilhena region)

A. The curare is skimmed during the boiling.

[Nr] B. Testing of the degree of concentration of the product with the aid of a straw.

[415 324] C. Funnel made of a leaf rolled into a horn and the leaf used to make it.

[415 323] D. A pot of grey clay, badly baked, used to prepare and keep curare (Nhambikwara of the Cabixi River).